

### III. AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

#### Listing of Claims:

1. (Original): A liquid dispenser apparatus comprising:  
a collapsible molded reservoir;  
a compressible metering chamber fluidly connected to said collapsible molded reservoir with a liquid introduction element;  
a liquid flow deflection element;  
an inlet unidirectional valve which connects said liquid introduction element to a metering chamber;  
a flexible diaphragm capable of substantial conformation to at least part of said metering chamber;  
a plunger configured to horizontally displace said flexible diaphragm; and  
a liquid exit element connected to said metering chamber having an outlet unidirectional valve.

2-6. (Canceled)

7. (Original): A liquid dispenser apparatus comprising:  
a liquid reservoir;  
a metering chamber fluidly connected to said liquid reservoir with a liquid introduction element;  
an inlet unidirectional valve which connects said liquid introduction element to a metering chamber;  
a flexible diaphragm capable of substantial conformation to at least part of said metering chamber;  
a plunger configured to compress and decompress said flexible diaphragm; and  
a liquid exit element connected to said metering chamber having an outlet unidirectional valve.

8-9. (Canceled)

10. (Original): A liquid dispenser apparatus according to claim 7 wherein said flexible diaphragm capable of substantial conformation to at least part of said metering chamber comprises a flexible diaphragm capable of substantial conformation to a wall of said metering chamber.

11-23. (Canceled)

24. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1, 2, 7 or 11~~ claim 7 and further comprising a dual clamp element.

25. (Original): A liquid dispenser apparatus according to claim 24 wherein said dual clamp element connects said liquid reservoir to said metering chamber and wherein said dual clamp connects said connected reservoir and metering chamber to an automated system.

26-28. (Canceled)

29. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1, 2, 7 or 11~~ claim 7 and further comprising an automated biological staining device.

30-31. (Canceled)

32. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1 or 7~~ claim 7 and further comprising an internal diaphragm compressor.

33. (Canceled)

34. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1, 2, 7 or 11~~ claim 7 wherein said metering chamber comprises a repeatable liquid measurement element.

35. (Canceled)

36. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1, 2, 7 or~~  
~~11~~ claim 7 and further comprising an internal mechanical stop located in said metering chamber  
to stop displacement of said metering chamber at an uncompressed position.

37. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1, 6, 7 or~~  
~~31~~ claim 7 wherein said flexible diaphragm comprises an uncompressed position and a  
compressed position.

38-44. (Canceled)

45. (Currently Amended): A liquid dispenser apparatus according to claim ~~[[1 or]]~~ 7  
and further comprising an actuator to which said plunger and said flexible diaphragm is  
responsive.

46. (Canceled)

47. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1, 2, 7 or~~  
~~11~~ claim 7 and further comprising a compression element and a uncompression element.

48. (Original): A liquid dispenser apparatus according to claim 47 wherein said  
uncompression element comprises a spring.

49. (Original): A liquid dispenser apparatus according to claim 47 wherein said  
compression element comprises a manual compression element.

50-51. (Canceled)

52. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1, 2, 7 or~~  
~~11~~ claim 7 wherein said outlet unidirectional valve comprises:  
a valve disk;

a valve retainer; and  
a valve membrane.

53-55. (Canceled)

56. (Original): A liquid dispenser apparatus according to claim 52 wherein said valve disk and membrane comprises a seal.

57. (Original): A liquid dispenser apparatus according to claim 56 wherein said seal comprises a positive fluid seal.

58. (Canceled)

59. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1, 2, 7 or 11~~ claim 7 and further comprising a seal between said reservoir and said liquid introduction element.

60. (Original): A liquid dispenser apparatus according to claim 59 wherein said seal is selected from a group consisting of a radial o-ring and flange o-ring.

61-65. (Canceled)

66. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1, 2, 7 or 11~~ claim 7 and further comprising reservoir housing around said reservoir.

67-68. (Canceled)

69. (Original): A liquid dispenser apparatus according to claim 7 wherein said reservoir comprises a collapsible molded reservoir and further comprising a reservoir collapse force less than a force required to uncompress said diaphragm.

70-72. (Canceled)

73. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1, 2 or 7~~ claim 7 wherein said reservoir comprises an interchangeable reservoir.

74. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1, 2 or 7~~ claim 7 wherein said reservoir comprises a refillable reservoir.

75. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1, 2, 7 or 11~~ claim 7 and further comprising a reduced friction dispenser.

76. (Canceled)

77. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1, 2, 7 or 11~~ claim 7 and further comprising a sealed system.

78. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1, 2, 7 or 11~~ claim 7 and further comprising a self priming element.

79. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1, 2, 7 or 11~~ claim 7 and further comprising a tip-down priming element.

80. (Currently Amended): A liquid dispenser apparatus according to ~~claim 1, 2, 7 or 11~~ claim 7 and further comprising a shipping lock.

81-86. (Canceled)

87. (Original): A liquid dispenser apparatus according to claim 7 wherein said plunger is configured to horizontally displace said diaphragm.

88-95. (Canceled)

96. (Original): A method of dispensing liquid comprising the steps of:  
establishing liquid in a reservoir;  
providing a metering chamber having a flexible diaphragm;  
displacing said flexible diaphragm from a compressed position to an uncompressed position;  
opening an inlet unidirectional valve which allows liquid to flow from said reservoir to said metering chamber;  
flowing an amount of liquid from said reservoir to said metering chamber through said inlet unidirectional valve;  
displacing said uncompressed diaphragm to a compressed position;  
closing said inlet unidirectional valve;  
opening an outlet unidirectional valve;  
substantially conforming said diaphragm against at least part of said metering chamber;  
distributing said amount of liquid from said metering chamber through said outlet unidirectional valve; and  
closing said liquid output unidirectional valve.

97-169. (Canceled)